COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION
FULL ESTIMATED COST | 0.21 | 0.21

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FILE COVERS 1907 - 24 May 2005 VOL 142 ISS 22
FILE LAST UPDATED: 23 May 2005 (20050523/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s propene oxide
         71573 PROPENE
       1559644 OXIDE
L1          410 PROPENE OXIDE
                (PROPENE(W)OXIDE)

=> s l1 and hydrazine
         60378 HYDRAZINE
L2           5 L1 AND HYDRAZINE

=> d 1-5 fbib abs fhitstr
```

L2 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:451673 CAPLUS
DN 141:8870
TI Process for the purification of crude **propene oxide**
IN Hofen, Willi; Haas, Thomas; Woll, Wolfgang; Thiele, Georg
PA Germany
SO U.S. Pat. Appl. Publ., 8 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI US 2004106811	A1	20040603	US 2002-428932P	P	20021126

AB A process for the purification of a crude **propene oxide** containing methanol and acetaldehyde by a continuously operated extractive distillation in a distillation column having a feeding point for the crude **propene oxide**, comprises the following steps: (a) feeding an extraction solvent to the distillation column at a point of said column above the feeding point of the crude **propene oxide** in an amount effective for lowering the volatility of methanol relative to the volatility of **propene oxide**; (b) feeding a compound containing an unsubstituted NH2 group and capable of reacting with acetaldehyde under the conditions of distillation to form compds. with a b.p. higher than that of **propene oxide** to the distillation column at a point above the feeding point of the crude **propene oxide** or admixing said compds. with the crude **propene oxide** feed to the distillation column; (c) withdrawing a purified

propene oxide from the distillation column at a position above feeding points of the extraction solvent and the compound containing an unsubstituted NH2 group. The purified **propene oxide** contains less than 100 ppm methanol and less than 100 ppm acetaldehyde.

L2 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:446920 CAPLUS
DN 141:7631
TI Extractive distillation process for the purification of crude propylene oxide
IN Hofen, Willi; Haas, Thomas; Woell, Wolfgang; Thiele, Georg
PA Degussa AG, Germany; Uhde GmbH
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1424332	A1	20040602	EP 2002-26240	20021126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
WO 2004048355	A1	20040610	WO 2003-EP13212	20031125
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
			EP 2002-26240 A	20021126

AB A process is described for the purification of a crude propylene oxide containing methanol and acetaldehyde by a continuously operated extractive distillation using an extraction solvent lowering the volatility of methanol and feeding a compound containing an unsubstituted NH2 group (e.g., **hydrazine**) capable of reacting with acetaldehyde to a distillation column at a point above the feeding point of the crude **propene oxide** to give a purified propylene oxide containing <100 ppm methanol and <100 ppm acetaldehyde. A process for the catalytic epoxidn. of propylene that includes this purification stage is presented.

L2 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1970:54724 CAPLUS
DN 72:54724
TI Hydroxyaminimines [hydroxyhydrazinium hydroxide inner salts]
IN Slagel, Robert C.
PA Ashland Oil and Refining Co.
SO Ger. Offen., 18 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 1914032	A	19691016	DE 1969-1914032	19690319
			US 1968-714323 A	19680319
US 3555095	A	19710112	US 1968-714323	19680319
			A	
JP 49019253	B4	19740516	JP 1969-20164	19690318
			US 1968-714323 A	19680319
BE 730098	A	19690901	BE 1969-730098	19690319
			US 1968-714323 A	19680319
GB 1226496	A	19710331	GB 1969-1226496	19690319
			US 1968-714323 A	19680319

AB tert-BuOH (120 ml) is stirred 48 hr in a closed vessel at room temperature with 0.2 mole Me2NNH2 and 0.2 mole **propene oxide**. The

product is cooled in an ice bath and saturated with HCl to give MeCH(OH)CH2N+Me2N-H. Similar compds. are prepared from ethylene oxide and other asym. substituted hydrazines.

L2 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1950:33379 CAPLUS
DN 44:33379
OREF 44:6402d-e
TI Research in the field of cyclic acetals of hydroxycarbonyl compounds. I. Synthesis and properties of the methyl lactolide of methylbenzoylcarbinol (1-methoxy-1-phenyl-1-**propene oxide**)
AU Temnikova, T. I.; Kropacheva, E. N.
CS Leningrad State Univ.
SO Zhurnal Obshchei Khimii (1949), 19(No. 10), a383-93
CODEN: ZOKHA4; ISSN: 0044-460X
DT Journal
LA English
AB See C.A. 44, 1929b.

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1950:9997 CAPLUS
DN 44:9997
OREF 44:1929b-e
TI Cyclic acetals of hydroxycarbonyl compounds. I. Preparation and properties of the methyl lactolide of methylbenzoylcarbinol (1 -methoxy-1-phenyl-1-**propene oxide**)
AU Temnikova, T. I.; Kropacheva, E. N.
CS Kafedra Stroeniya Org. Soedinenii Leningrad. Gosudarst. Ordena Lenina Univ. im. A. A. Zhdanova
SO Zhurnal Obshchei Khimii (1949), 19, 1917-26
CODEN: ZOKHA4; ISSN: 0044-460X
DT Journal
LA Unavailable
GI For diagram(s), see printed CA Issue.
AB PhCOCHBrMe (32 g.) in Et2O treated slowly with a suspension of MeONa (from 10 g. Na) in Et2O yielded 10 g. 1-methoxy-1-phenyl-1-**propene oxide**, Ph(MeO)C.CHMe.O, b4 63-5°, d419 1.0521, nα19 1.49604, which polymerizes on standing (mol. weight doubles in 24 hrs.). The product (0.5 g.) treated with 1.5 g. PhNHNH2 in EtOH containing a little AcOH, heated 0.5 hr. on a steam bath, and let stand overnight gave 0.45 g. PhC(:NNHPh) CHMeNHNHPh, m. 126° (from EtOH). Heating the oxide with H2SO4 in all dilns. gave mostly tars; with 5% H2SO4 there was obtained a very low yield of a solid, m. 208° (C20H24O4), and phenylacetylcarbinol, b12 120-1° (semicarbazone, m. 189°). Addition of the oxide (8.5 g.) to 5% H2SO4 preheated to 80° and stirring 1.5 hrs. on a steam bath gave 3.43 g. methylbenzoylcarbinol, b1.5 83-5°, nα19 1.54571 (forms a semicarbazide, m. 230°, on prolonged standing with the reagent). Reaction of this hydrolysis product with PhMgBr gave 1,1-diphenyl-1,2-propanediol, m. 91-2° (from petr. ether), which gives Ph2CO on chromic acid oxidation. Addition of 3 ml. 3% MeOH-HCl to 0.5 g. oxide gave, after vigorous action, 0.3 g. 2,5-dimethoxy-2,5-dimethyl-3,6-diphenyl-p-dioxane, m. 251° (from C6H6). The nomenclature of olefin oxides and lactols is discussed; the use of the prefix cyclo for the ring forms is urged.

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---Logging off of STN---

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Executing the logoff script...

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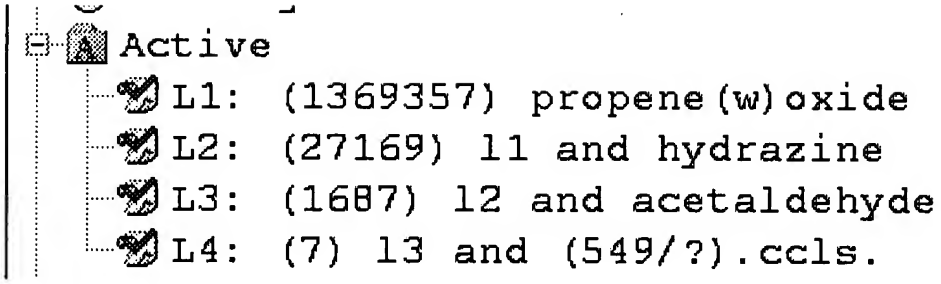
COST IN U.S. DOLLARS SINCE FILE TOTAL

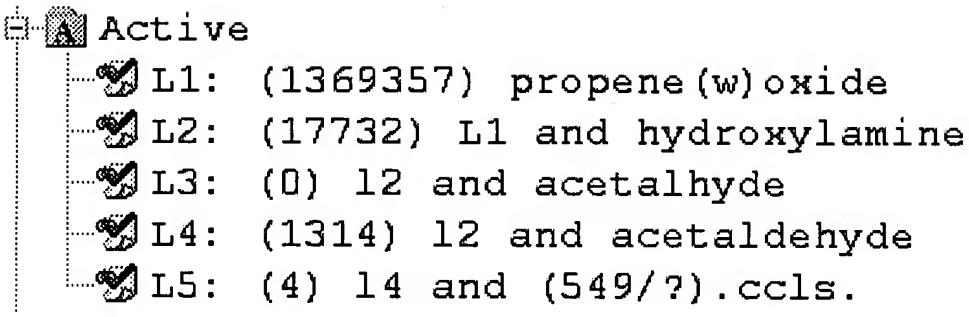
```
=> s propene oxide
         71573 PROPENE
       1559644 OXIDE
L1           410 PROPENE OXIDE
                 (PROPENE(W)OXIDE)

=> s l1 and hydroxylamine
         30595 HYDROXYLAMINE
L2           1 L1 AND HYDROXYLAMINE

=> d fbib abs fhitstr

L2   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2004:433666  CAPLUS
DN   140:392924
TI   Production of aqueous hydrogen peroxide solutions and their use for the
     epoxidation of olefins
IN   Haas, Thomas; Brasse, Claudia; Stochniol, Guido; Glenneberg, Jurgen; Woll,
     Wolfgang
PA   Germany
SO   U.S. Pat. Appl. Publ., 7 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.          DATE
     ---------------     ----   --------    --------------------     --------
PI   US 2004101462        A1    20040527    US 2003-669978           20030924
                                             US 2002-414327P      P   20020930
     US 2004127730        A1    20040701    US 2003-669993           20030924
     US 6838572           B2    20050104
                                             US 2002-414327P      P   20020930
                                             US 2002-414329P      P   20020930
AB   An aqueous hydrogen peroxide solution containing (i) <50 wppm alkali metals, and/or
     alkaline earth metals, (ii) <50 wppm of amines having a pkB of <4.5 (ammonia
     or hydroxylamine) or the corresponding protonated compds. in
     total; and (iii) at least 100 wppm anions or compds. that can dissociate to
     form anions in total, where the wppm are based on the weight of hydrogen
     peroxide and the concentration of hydrogen peroxide is >50% by weight based on the
     total weight of the hydrogen peroxide solution  The hydrogen peroxide solution is
     produced by hydrogenating a working solution containing at least one active
     anthraquinone compound and at least one organic solvent, oxidizing the
     hydrogenated working solution to form H2O2, extracting the H2O2 with water,
     stabilizing the aqueous solution, concentrating the solution, drying the working solution
     after extraction, and regenerating the working solution using alumina.  A process
     for preparation of said hydrogen peroxide solution and the use of said solution in a
     process for epoxidn. of olefins is also disclosed.
```

AN 2004:446920 CAPLUS
DN 141:7631
TI Extractive distillation process for the purification of crude propylene oxide
IN Hofen, Willi; Haas, Thomas; Woell, Wolfgang; Thiele, Georg
PA Degussa AG, Germany; Uhde GmbH
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1424332	A1	20040602	EP 2002-26240	20021126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
WO 2004048355	A1	20040610	WO 2003-EP13212	20031125
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
			EP 2002-26240	A 20021126

AB A process is described for the purification of a crude propylene oxide containing methanol and acetaldehyde by a continuously operated extractive distillation using an extraction solvent lowering the volatility of methanol and feeding a compound containing an unsubstituted NH2 group (e.g., **hydrazine**) capable of reacting with acetaldehyde to a distillation column at a point above the feeding point of the crude **propene oxide** to give a purified propylene oxide containing <100 ppm methanol and <100 ppm acetaldehyde. A process for the catalytic epoxidn. of propylene that includes this purification stage is presented.


Active
L1: (1369357) propene(w)oxide
L2: (27169) l1 and hydrazine
L3: (1687) l2 and acetaldehyde
L4: (7) l3 and (549/?).ccls.


Active
L1: (1369357) propene(w)oxide
L2: (17732) L1 and hydroxylamine
L3: (0) l2 and acetalhyde
L4: (1314) l2 and acetaldehyde
L5: (4) l4 and (549/?).ccls.

EAST Bks

- Active
  - L1: (9331) propene
  - L2: (2352) L1 and peroxide
  - L3: (267) L2 and hydrazine
  - L4: (1819229) s l3 and acetaldehyde
  - L5: (1819225) s l3 and extractive
  - L6: (1819655) s acetaldehyde and hydrazine
  - L7: (1819243) s l6 and propene
  - L8: (1819240) s l3 and distillation
- Failed